

25 January 1971

MEMORANDUM FOR THE RECORD

SUBJECT: Water and Sewer Plan & Program 1970

1. The following quotations were obtained from the "Water and Sewer Plan and Program 1970" prepared by the Metropolitan Washington Council of Governments and published in September 1970.

2. This publication has the following general contents:

- I General Development Goals and Objectives
- II Areawide Land Use Policies
- III Regional Water and Sewer Planning Process
- IV Status of Water and Sewer Facilities
- V Regional Water and Sewer Plan
- VI Regional Water and Sewer Program
- VII Future Policies

It also contains tables, maps and figures as appendices.

3. Sewage Facilities - page 39

"One of the most important regional facilities operated by the District of Columbia is the Dulles-Potomac Interceptor. On July 12, 1960, the 86th Congress approved Public Law 86-515 which authorized the District of Columbia to plan, construct, operate, and maintain a sanitary sewer to connect the Dulles International Airport with the District of Columbia system. The Dulles-Potomac interceptor sewer is completed in the portions to the north of the District line. However, a vital 3,000 foot section of the interceptor between the District line and Blue Plains Plant (commonly known as Project C) is not yet completed. Delay in completing this project has resulted from a controversy relating to the location of the Three Sisters Bridge."

Major Problems: page 40

"For example, in the District of Columbia, sewage collection is evidenced in the portion of the system connecting the Dulles-Potomac Interceptor from District of Columbia line to the Blue Plains Water Pollution Control Plant. Sewage overflows

occur in the System at the Georgetown area, because of sewage overloads. This situation is caused by the fact that the District of Columbia, in an effort to accommodate suburban sewage flows in the face of the delays in the completion of Project-C, has diverted these flows through the existing sewer system as a bypass for the missing link. Sewage flows in this system, therefore, are far beyond the capacity for which they were designed. Completion of the Project-C (mentioned previously) is critically needed to solve the above problem."

Blue Plains Water Pollution Control Plant - page 40

"At present Blue Plains Plant has a rated design capacity of 240 mgd of average flow to serve a population of 1.7 million. Blue Plains facility is faced with a twofold problem: (1) hydraulic overloading of the plant, and (2) need for improving the quality of effluent discharged from the plant."

Overloading:

Recent studies have established that Blue Plains Plant has a present average flow of about 249 mgd and thus is overloaded. Out of this existing average flow, 124 mgd is estimated to be contributed by the District of Columbia, 113 mgd by WSSC, 5 mgd by Dulles Interceptor, and 7 mgd by communities in Virginia."

Quality of Effluent

The Quality of effluent from the Blue Plains Plant has been of major concern in the maintenance of the quality of the Potomac River. Recent (1970) records show the facility achieves only about 70% removal of Biochemical Oxygen Demand (BOD) as against the higher percentage of removal recommended by the Potomac Enforcement Conference in 1969." (90%)

Page 43 - "The Blue Plains Plant's future expansion is still unresolved."

4. Water Facilities - page 35

"Source of Supply - As present, the Washington Metropolitan Area depends primarily on two surface water sources: The Potomac River and its tributaries and the Patuxent River. A limited amount of water is also taken from deep wells in the area.

Potomac River is the primary source of water supply accounting for about 65% of the water supplied in the Metropolitan Area. In 1970, the average quantity of water supplied from Potomac River was estimated to be about 256 million gallons per day (mgd). For the same year, about 50 mgd of water was supplied from the tributaries of Potomac River and about 60 mgd from Patuxent River. Other sources such as deep wells contributed about 15 mgd."

"In Fiscal Year 1970, the average quantities of water supplied from the Washington Aqueduct (Potomac River) were as follows:

to District of Columbia	-	159 mgd
to Arlington County	-	22 mgd
to City of Falls Church	-	12 mgd"

NOTE: The Agency buys approx. 0.4 mgd of water from the City of Falls Church.

Page 39 - "Existing Concerns and Future Plans

The most vital problem of the regional water supply in the Washington Metropolitan Area concerns the low flows in both the Potomac and Patuxent Rivers during summer months when the water demands are the highest. Construction of additional upstream reservoirs on the Potomac River is critically needed."

5. The solution to the aforementioned water and sewer problems will assure satisfactory service of these two utilities to the Agency Headquarters area for many years in the future.



Engineer, BPS/OL

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